BY ORDER OF THE COMMANDER

SAFB INSTRUCTION 23-301
8 July 1999
Supply

HEADQUARTERS 82D TRAINING WING
OFFICIAL

CORRECTED COPY

ENERGY CONSERVATION

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

NOTICE: This publication is available digitally on the **SAFB WWW** site and can be downloaded at: http://webi.sheppard.af.mil/82cs/safbpubs. If you lack access, contact your Publication Distribution Office.

OPR: 82 CES/CEOE (Mr. Sam Hagins)

Certified by: 82 CES/CC (Lt Col Martin)

Pages: 7/Distribution: F, X

This instruction implements AFPD 23-3, ***Energy Management***. It establishes and defines base policies and general procedures for the Sheppard AFB Energy Conservation Program. It applies to all units and activities assigned and/or attached to Sheppard Air Force Base, including tenants and Military Family Housing. It does not apply to geographically separated units.

1. RESPONSIBILITY. ***Each Commander shall ensure compliance with this instruction.*** The responsibilities for the implementation of the Sheppard AFB energy conservation program are as follows:

1.1. Base Energy Steering Group (BESG)

1.1.1. The BESG is the highest level of energy conservation management at Sheppard AFB and is responsible for directing all energy matters at base level to include projects, initiatives, and awareness measures. The BESG shall be responsible for determination and over-site of basewide energy conservation policies at Sheppard AFB.

1.1.2. The group shall consist of the following individuals:

Vice Commander, 82 TRW (Chairperson)

Commander, 80 OG/CC	Commander, 882 TRG
Commander, 82 SPTG	Commander, 982 TRG
Commander, 82 LG	Chief, Programs Division, 82 TRW
Commander, 82 MDG	Director, Office of Public Affairs, 82 TRW
Commander, 82 TRG	Comptroller, 82 CPTS
Commander, 782 TRG	Base Energy Manager, 82 CES (Recorder)

1.1.3. The BESG shall meet quarterly. The responsibilities of the BESG are as follows:

1.1.3.1. Make energy policy recommendations to the 82 TRW Commander.

1.1.3.2. Review energy conservation results, assessment of effectiveness, and initiate any changes necessary.

1.1.3.3. Foster an effective energy conservation information program.

1.1.3.4. Ensure new facility designs and any renovation to existing facilities are energy efficient.

1.2. Base Energy Manager (BEM)

1.2.1. The BEM shall be a degreed engineer from the 82nd Civil Engineer Squadron, Operations Flight, and shall be appointed to the position by the Deputy Base Civil Engineer.

1.2.2. The BEM shall manage all utility contracts (electricity, natural gas, water, sewer, etc.) and be final approval authority on all utility bills.

1.2.3. The BEM shall be the primary point of contact for all energy conservation and energy related activities at Sheppard AFB. The responsibilities of the BEM are as follows:

1.2.3.1. Identify, evaluate, and recommend ways to reduce energy usage in and around Sheppard's facilities to the BESG.

1.2.3.2. Research, develop, and initiate energy conservation projects.

1.2.3.3. Review all engineering plans for compliance with base energy conservation policies.

1.2.3.4. Estimate and track energy conservation at Sheppard to provide energy conservation data and analysis to the BESG.

1.2.3.5. Facilitate quarterly BESG meetings.

1.2.3.6. Serve as recorder for quarterly BESG meetings.

1.2.3.7. Serve as Chairperson for the Energy Conservation Working Group (ECWG).

1.3. Energy Conservation Working Group (ECWG)

1.3.1. The ECWG shall implement all matters pertaining to energy conservation as directed by the BESG.

1.3.2. The chairperson shall be the BEM and other members shall be Energy Conservation Monitors (ECMs) appointed by members of the BESG. There shall be both a primary and alternate ECM from the following:

80 FTW
82 SPTG
82 LG
82 MDG
82 TRG
782 TRG
882 TRG
982 TRG

1.3.3. The group shall meet at the request of the BEM. The responsibilities of the ECWG are as follows:

1.3.3.1. Disseminate, implement, and enforce energy policies within their group.

1.3.3.2. Direct, train, and monitor facility managers on energy conservation at the facility level.

1.3.3.3. Keep group commander informed on all energy matters.

1.3.3.4. Work with BEM to improve energy efficiency in their areas.

1.4. Facility Managers

1.4.1. Facility Managers are appointed by each Squadron Commander and shall be responsible for energy conservation duties at the facility level as directed by the BESG/ECWG.

1.4.2. Using policies and guidelines published by the BESG in the form of policy letters or operating instructions, the responsibilities of the Facility Managers are as follows:

1.4.2.1. Assure proper management of energy resources in their facilities.

1.4.2.2. Make on-the-spot corrections, when possible, of energy misuse/abuse in their area.

1.4.2.3. Ensure those responsible for securing their building are aware of energy conservation policy for unoccupied hours and ensure they are implemented (e.g., temperature settings, lighting, equipment usage, etc.).

1.4.2.4. Report energy waste in and around their facility to their ECMs and ensure building temperatures comply with base energy conservation policies.

1.4.2.5. Send an update of facility operating hours to the 82d Civil Engineer Squadron, Maintenance Engineering Element (82 CES/CEOE), by 15 May of every year, or as needed.

2. ENERGY CONSERVATION PROGRAM. The goal of Sheppard's energy conservation program is to reduce energy consumption by 30 percent per square foot by FY05 relative to FY85 baseline, in accordance with Executive Order 12902, dated 8 Mar 94. Headquarters AETC set the following goals for Sheppard AFB as guidelines to meet the reduction goals.

Fiscal Year	Goal
97	16% (90.1 kBTU/sq.ft.)
98	18% (88.0 kBTU/sq.ft.)
99	20% (85.8 kBTU/sq.ft.)
00	22% (83.7 kBTU/sq.ft.)
01	24% (81.5 kBTU/sq.ft.)
02	26% (79.4 kBTU/sq.ft.)
03	28% (77.3 kBTU/sq.ft.)
04	29% (76.2 kBTU/sq.ft.)
05	30% (75.1 kBTU/sq.ft.)

FY85 baseline usage was 107.3 kBTU/sq.ft.

2.1. Main Base

2.1.1. Load Deferral. Load deferral is a program where non-mission critical electrical devices (i.e., coffee pots, lights, computers, etc.) are turned off during peak cooling hours to reduce Sheppard's yearly peak electrical demand. Load deferral is an energy savings strategy implemented to help the base meet its energy reduction goals as well as save O&M dollars. Each group shall have a load deferral plan for each of its facilities.

2.1.1.1. Devising Plan. Each group commander shall have a primary and alternate Energy Conservation Working Group member who shall develop a load deferral plan to reduce lighting and non-essential electrical use by at least 50% in each of their facilities during peak demand periods.

2.1.1.2. Approval of Plan. Each group's load deferral plan shall be submitted to the BEM no later than 15 May each year for approval. The BEM shall keep each plan on file for implementation.

2.1.1.3. Implementation of Plan. ***The base load deferral plan shall be implemented on 1 June until 1 September each year between the hours of 1300 and 1630.*** It is up to each group commander to ensure the plan is followed.

2.1.2. Temperature Settings. The temperature setting is defined as the average temperature in a room. Basewide temperature settings shall be strictly enforced during the normal facility operating hours that are set by the group commander. Waivers to change temperature settings in a particular facility shall be sent to the 82nd Civil Engineer Squadron, Maintenance Engineering Element (82 CES/CEOE). These waivers shall fully justify the need to change temperature settings and shall be signed by the group commander in charge of the facility. Waivers shall be reviewed for approval/disapproval by the BEM and EMCS foreman and then sent to the vice commander with recommendations. ***The vice commander has final approving authority for all waivers.***

2.1.2.1. Heating season (winter) temperature settings shall be 68° F. During unoccupied times, the heating temperature settings shall not exceed 55° F. **Exceptions** shall be as follows:

Facility	Thermostat Setting (°F)
Hospital	74
Child Development Center	74
Chapels (during services)	70
Service Facilities*	70
Living (Dorms/VOQ/VAQ/TLF	70
Industrial Areas	55
Storage Areas	40
Warehouses	N/A if no danger of freezing

2.1.2.2. Cooling season (summer) temperature settings shall be 78° F. During unoccupied times, cooling systems shall be shut off unless specifically designed and/or justified for after hour use by the vice commander. Exceptions shall be as follows:

Facility	Thermostat Setting (°F)
Hospital	74
Child Development Center	74
Chapels (during services)	74
RAPCON	74
Service Facilities*	74

****Service Facilities include Theaters, Clubs, Bowling Alleys, Community Activity Center, Youth Center, Library, and Dining Halls.***

2.1.3. Heating, Ventilation, Air Conditioning (HVAC). HVAC systems shall be maintained and operated IAW manufacturer's instructions and/or directives by base Civil Engineer.

2.1.3.1. Windows and doors shall remain closed during heating and cooling seasons unless systems are shut down for maintenance or only mechanical ventilation is provided.

2.1.3.2. Window shades and blinds should be up to maximize heat gain during the heating season and down to minimize the heat gain during the cooling season.

2.1.4. Electric Lamps and Equipment.

2.1.4.1. Replacement bulbs for interior fluorescent fixtures shall not exceed 34 watts.

2.1.4.2. ***The operation of portable heaters is prohibited (excluding base housing) except for documented medical reasons or where HVAC is unable to maintain temperatures stated in paragraph 2.1.2.1.*** There are no other exceptions. If space heater use is approved then requester's supervisor shall be responsible for proper use and condition of space heater IAW SAFBI 32-2001. ***Space heater approval shall be validated annually using*** SAFB Form 17***, a Space Heater Request Form, for all space heaters on base. Approval expires on 30 September of each year.***

2.1.4.2.1. The SAFB Form 17 must be prepared by requester and all necessary signatures obtained before use of the space heater is allowed. Signatures include supervisor of requester, Fire Department Representative, and Base Civil Engineer Representative. The space heater request form must be dated the same fiscal year in which the heater is to be operated. ***The Base Energy Manager has final approving authority for all space heaters***. The Civil Engineer Squadron Operations Flight, 82 CES/CEO, and the Fire Department, 82 CES/CEF, shall keep copies of the form. The original form shall be kept on file by the requester at the location the space heater is used.

2.1.4.3. The Facility manager shall review equipment operations and practices (personal computers, printers, faxes, test equipment, food preparation equipment, etc.) to ensure equipment is being used efficiently and only when needed.

2.1.5. Domestic Hot Water. Temperature settings for domestic hot water heating shall be between 120° and 140° F. Settings do not apply to health or food preparation facilities where higher temperatures are required for health and/or sanitation reasons.

2.2. Military Family Housing (MFH)

2.2.1. Temperature Settings. Temperature settings are defined as the average temperature in a room.

2.2.1.1. Heat temperature settings in MFH shall not exceed 70° F.

2.2.1.2. Air conditioning temperature settings in MFH shall not fall below 76° F.

2.2.2. HVAC. Systems shall be maintained and operated IAW manufacturer's instructions and/or directives by the housing contractor.

2.2.2.1. Windows and doors shall remain closed during heating and cooling seasons unless systems are shut down for maintenance or only mechanical ventilation is provided.

2.2.2.2. Window shades and blinds should be up to maximize heat gain during the heating season and down to minimize heat gain during the cooling season.

2.2.2.3. Furniture or other items shall not be placed where they restrict airflow; such as in front of return air grilles.

2.2.3. Electric Lamps and Equipment.

2.2.3.1. Replacement bulbs for interior fluorescent fixtures shall not exceed 34 watts. Compact fluorescent bulbs shall be used whenever possible.

2.2.3.2. Exterior doorway lights shall not exceed 40 watts unless a higher lighting level is necessary due to security concerns.

2.2.3.3. Carport lights shall not exceed 60 watts.

2.2.3.4. Exterior lights in family housing shall be turned off prior to retiring for the night unless required for security or personal purposes. No exterior lights will be on during the daylight hours.

2.2.3.5. Electrical equipment shall be turned off when not in use.

2.2.4. Domestic water heater temperature settings shall be between 120° and 140° F.

3. Forms Prescribed: SAFB Form 17**, Space Heater Request.**

SHARLA J. COOK, Brig Gen, USAF
Commander